

3 (5)

AUTHORS:

Starik, I. Ye., Corresponding Member SOV/20-126-1-39/62
AS USSR, Ravich, M. G., Krylov, A. Ya.,
Silin, Yu. I.

TITLE:

On the Absolute Age of the Rocks of the East-Antarctic Platform
(Ob absolyutnom vozraste porod Vostochno-Antarkticheskoy plat-
formy)

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 126, Nr 1, pp 144 - 146
(USSR)

ABSTRACT:

In the present paper the first determination results of the rocks mentioned in the title, mainly of Precambrian age, are discussed. For this purpose the collection of the Sovetskaya antarkticheskaya ekspeditsiya (Soviet Antarctic Expedition) 1956-58 was used. It was collected during the prospecting of a coastal strip of almost 5000 km length (Refs 1,2). The investigated region has the structure of a 3-stage plateau which is in many a respect analogous to the other Godvanskiye platforms. All three stages are characterized in short. No Mesozoic sediments have hitherto been found in the region of the mentioned plateau. Cenozoic sediments are only represented by covers of basic effusives among which leucite basalts predominate. The

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first 40 determinations of the absolute age by means of the argon method made more precise ideas possible concerning the structure of the aforesaid plateau. Several results were surprising and their geological interpretation meets with serious difficulties (Table 1). The highest age, i. e. 1020-1270 million years were obtained at first for the oases Langeneset, Grirson, Banger, and Obruchev, i. e. for leucocratic granites and pegmatites. The age of the weakly migmatitic (Banger oasis and other regions of the crystalline basement) rocks fluctuates between 940 and 1050 million years. So-called poly-migmatites which are 700-730 million years old occur at the same time at several places, especially in the Banger oasis. Thus two migmatitization stages can be separated: a) an earlier one which occurred more than 1000 million years ago, and b) a late one - more than 700 million years ago. Thus the migmatitization of the oldest masses of the eastern Antarctic belongs to the Proterozoic. A packet of gneisses in the region of the Einsvert bay and the Vil'son elevation is for the time being the only exception. Weakly migmatitized biotite-gneisses are here 425-485 million years old. This agrees almost with the age of the

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here occurring porphyroblastic granites. The age of the green schists and mica phyllites (middle stage of the plateau) fluctuates between 400 and 500 million years. This corresponds to Sinian and Lower Cambrian. The Rapakivi granites in the extreme east of the investigated region has approximately the same age. The most recent granitoids are the subalkaline biotite-hornblende varieties. They are Caledonian, with an age of 305-315 million years. The age of the gabbro-dolerite from a stratiform intrusion within the Bikon (Beakon) series (170 million years old) agrees rather well with the geological position (Lower Triassic). The same holds in the case of Tertiary leucite-granite (mountain Gauss) which is approximately 20 million years old. The age determinations of the mentioned rocks confirm on the whole the authors' assumption concerning the 3-stage structure of the plateau. The old Gerling constant $\lambda_k = 6.02 \cdot 10^{-11} \text{ year}^{-1}$ which is much used in the USSR was used for the determination. The data are only temporary and probably

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somewhat too low. There are 1 table and 3 Soviet references.

ASSOCIATION: Radiyevyy institut im. V. G. Khlopina Akademii nauk SSSR
(Radium Institute imeni V. G. Khlopin of the Academy of
Sciences, USSR). Nauchno-issledovatel'skiy institut geologii
Arktiki (Scientific Research Institute of the Geology of the
Antarctic)

SUBMITTED: January 19, 1959

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ATRASHENOK, L. Ya.; AVDZEYKO, G.V.; KRYLOV, A. Ya.; SILIN, Yu. I.

Absolute age of the Monastyr type granites of Kalba. *Geokhimiia*
no.3:278-279 '60. (MIRA 14:5)

1. Radiyevyy institut imeni V. G. Khlopina AN SSSR, Leningrad.
(Kalba Range--Granite)
(Geological time)

KRYLOV, A.Ya.; SILIN, Yu.I.

Using the argon method for determining the age of clastic
sedimentary rocks. Izv.AN SSSR.Ser.geol. 25 no.1:56-66 Ja
'60. (MIRA 13:8)

1. Radiyevyy institut imeni V.G.Khlopina AN SSSR, Leningrad.
(Argon) (Rocks, Sedimentary)

STARIK, I.Ye.; RAVICH, M.G.; KRYLOV, A.Ya.; SILIN, Yu.I.; ATRASHENOK, L.Ya.;
LOVTSYUS, A.V.

Recent data on the absolute age of rocks in eastern Antarctica. Dokl.
AN SSSR 134 no.6:1421-1423 O '60. (MIRA 13:10)

1. Radiyevyy institut im. V.G.Khlopina Akademii nauk SSSR. 2. Chlen-
korrespondent AN SSSR (for Starik).
(Antarctic regions--Rocks) (Geological time)

KRYLOV, A.Ya.; LEBITSYN, A.P.; SILIN, Yu.I. [Silins, J.I.]

Significance of the argon - potassium ratio in oceanic silt. Izv.
AN SSSR.Ser.geol. no.3:87-100 Mr '61. (MIRA 15:2)

1. Radiyevyy institut AN SSSR, Leningrad i Institut okeanologii
AN SSSR, Moskva.

(Ocean bottom--Deep-sea deposits)
(Geological time)

STARIK, I.Yo.; KRYLOV, A.Ya.; SILIN, Yu.I.

Absolute age of base rocks in the eastern part of the Russian
Platform. Biul.Kom.po opr.abs.vozr.geol.form. no.4:6,-65 '61.
(MIRA 15:1)

(Russian Platform—Rocks, Crystalline and metamorphic)
(Geological time)

KRYLOV, A.Ya.; VORONOV, P.S.; SILIN, Yu.I.

Absolute age of the crystalline basement of eastern Antarctica.
Dokl. AN SSSR 143 no.1:184-187 Mr '62. (MIRA 15:2)

1. Radiyevyy institut im. V.G.Khlopina AN SSSR. Predstavleno
akademikom D.I.Shcherbakovym.
(Antarctic regions--Geology, Stratigraphic)

RAVICH, M. G.; KRYLOV, A. Ya.; SOLOV'YEV, D. S.; SILIN, Yu. I.

Absolute age of rocks of the central part of the mountains in
Queen Maud Land (eastern Antarctica). Dokl. AN SSSR 147 no.6:
1433-1436 D '62. (MIRA 16:1)

1. Nauchno-issledovatel'skiy institut geologii Arktiki i
Radiyevyy institut im. V. G. Khlopina AN SSSR. Predstavleno
akademikom D. I. Shcherbakovym.

(Queen Maud Land—Petrology)

AVRASHOV, A.S.; KRYLOV, A.Ya.; SILIN, Yu.I.

New data on the age of granitoid intrusives in the central
Pamirs. Dokl. AN SSSR 153 no.5:1136-1139 D '63.
(MIRA 17:1)

1. Predstavleno akademikom D.I. Shcherbakovym.

GRICH, A.; SOBEL'MAN, I.M. [translator]; SILIN, Yu.S., redaktor;
LEVONNEVSKAYA, L.O., tekhnicheskii redaktor

[Explanatory index to a short guide to Leningrad] Leningrad;
ukazatel' k kratkomu putevoditelu po gorodu Leningradu.
[Leningrad] Lenizdat, 1956. 34 p. [Parallel texts in Russian and
English] [Photostat] (MLRA 9:9)
(Leningrad--Directories)

ACCESSION NR: AP4020334

S/0089/64/016/003/0252/0253

AUTHORS: Karamyan, A.S. (Deceased); Kuzeyev, B.I.; Kress, R.P.;
Silin, Yu. S.; Stukov, G.M.; Shchebolev, V.T.;
Yaritsy*na, I.A.

TITLE: Absolute determination of a number of neutrons emitted by
source, using the associated particle method

SOURCE: Atomnaya energiya, v. 16, no. 3, 1964, 252-253

TOPIC TAGS: absolute determination, absolute neutron determination,
associated particle method, alpha particle, emitted neutron, gra-
phite, neutron determination

ABSTRACT: The method of associated particles is based on a com-
parison of neutron flux from the source being studied with neutron
flux from the reaction $T(d, n) He^4$. Since one α -particle corres-
ponds to each outgoing neutron in this reaction, it is possible to
determine the number of emitted neutrons by the absolute counting
of α -particles. In a medium for which the moderation length is

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ACCESSION NR: AP4020334

less than the diffusion length, it is possible to find such spacing of thermal neutrons from source to detector where the density of thermal neutrons does not depend on the energy of neutrons emitted by the source and is determined only by its intensity. Graphite in the form of a sphere with a 4 m. diameter was used as such a medium. Three curves for 3 different sources are given in the figure in the Enclosure. The point of intersection of curves determines the radius of the efficiency constant for a given device. This distance is 82 cm. To find the number of neutrons being emitted by various sources, it is not necessary to measure the full curves of thermal neutron distribution in the graphite globe. It is sufficient to determine the number of detector readings in the spacing of the efficiency constant. Mean square error of method is about $\pm 1.4\%$. Orig. art. has: 2 figures.

ASSOCIATION: None

SUBMITTED: 18Apr63

DATE ACQ: 31Mar64

ENCL: 01

SUB CODE: NS, PH

NO REF SOV: 001

OTHER: 002

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ACCESSION NR: AP4020334

ENCLOSURE: 01

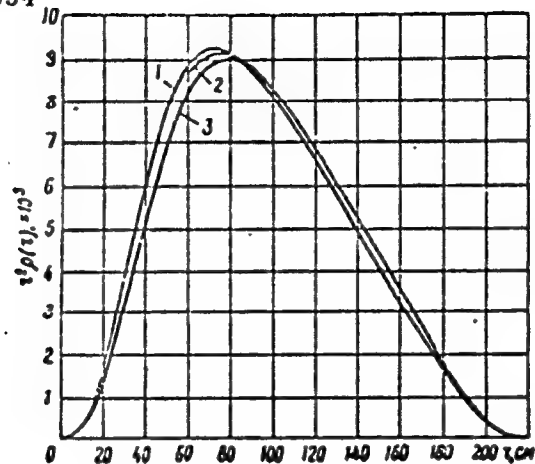


Fig. 1

Space distribution curves for thermal neutrons in graphite sphere:

- 1--for neutrons of Ra-Be source;
- 2 - for neutrons of Po-Be source;
- 3 - for neutrons obtained from $T(d,n)He^4$ reaction

Card 3/3

ANDRUSOV, O. A., SILIN, Yu.S., STUKOV, G.M., FOMENTAN, V.I., SHCHERBOLEV,
I.I.; YAKITSYNA, I.A.

International comparisions of neutron sources. Atom. energ.
10 no.2:181-182 Ag '65. (MIRA 18:9)

BILIN-BEKCHURIN, A. I.

Dr. Geological & Mineralogical Sci. Mbr., Lab. Hydrogeological Problems im. F. B. Savarenskiy, Dept. Geologico-Geog. Sci., Acad. Sci., -1945-48-.

"Concerning the Problem of the Formation of Salt Water in Bachkiria," Dok. AN, 52, No. 1, 1946;

"The Effect of Kinematic Density, Reduced Pressure and Permeability of Rocks on the Speed of Filtration of Brine in the Oil Bearing Strata of the Ural-Volga Oblast," ibid., 58, No. 6, 1947;

"Formation of Subsurface Waters in Eastern Oil Regions" (bk) 1948.

1. SHIM-BYKHURIN, A. I.

2. USSR (600)

4. Water, Underground - "Second Baku"

7. Hydrogeological conditions and the flood potential of the principal oil fields of the "Second Baku." (Abstract.) Izv.Glav.upr.geol.fon no. 3, 1947

9. Monthly List of Russian Accessions, Library of Congress, March 1953, Unclassified.

CA

Influence of varying movements of the earth's crust in the Region of the Urals-Volzhskii depression on the conditions of formation of subterranean flow of water and of petroleum deposits. A. N. Silin-Bekhturin. *Trudy Lab. Gidrogen. Problem im. F. P. Severnitskogo*. Akad. Nauk S.S.R. 1, 72-87(1944).—Chiefly geol. showing how fresh (river) waters are changed in compn. (metamorphosed) by the more highly mineralized waters of lower rock strata when the level of such rocks is raised. Half of the paper deals with the formation and destruction of petroleum deposits under well-recognized geol. conditions. Thus, petroleum absorbed by rocks is gradually displaced by water, even when the rock pores are as small as those of clays. There is a relation between the degree of metamorphism of the subterranean water and the rate of accumulation of the pool of petroleum. V. H. Gottschalk

CHIR-BEKCHURIN, A. I.

"Chir-Bekchurin, A. I.", "The hydrogeologist: on the 70th anniversary of his birth, on the 50th anniversary of his scientific and pedagogic work, signed by: A. I. Chir-Bekchurin, E. I. Chelikhin, A. I. Silin-Bekchurin, and others), Trudy Inst. geol. i gidrokol. problem. im. aka. S. A. Savarenko (Mosk. gos. SSSR, Otdel. geol.-gorn. nauch. zap.), Vol. III, 1981, pp. 1-15, with portrait, - Bibliog: "The scientific works of A. I. Chir-Bekchurin", pp. 11-15.

33: "Mosk. gos. univ. im. M. V. Lomonosov", (Izvestia Zhurnal 'nykh Statey, No. 1, 1981).

1971-1972, 1973.

Millin-Belcher, A. I. "On the dynamic irrigation of oil deposits", Izv. Akad. Nauk SSSR, St. -nitsa red.-nauk. mat.), Vol. III, 1973, No. 13-14, - Bibliog: 7 items.

1971-1972, 1973, (1 to 14) Izv. Akad. Nauk SSSR, St. -nitsa red.-nauk. mat.), Vol. III, 1973, No. 13-14, - Bibliog: 7 items.

SHI IN-BEFCHURIN, A. I.

Water, Underground

Method of approximate piezometer computation of velocities of filtration and underground flow of brines. Trudy. Lab. gidrogeol. probl. No. 2, 1949

Monthly List of Russian Accessions, Library of Congress, December 1952 UNCLASSIFIED

ЗАДАЧА, Г. В., СИНТЕЗ, Г. В., РЕШЕНИЕ, Г. В.

Water, Underground

Problems in the formation of ground waters based on materials from the transactions of the Laboratory of Hydrogeological Problems, Vol. 1. Trudy Lab. gidrogeol.probl. No. 2, 1949.

Monthly List of Russian Accessions, Library of Congress, December 1952. Unclassified.

1. SILIN-BEKCHURIN, A.I.
2. USSR (600)
4. Geology and Geography
7. Special hydrogeology. A.I. Silin-Bekchurin. (Moscow, State Geological Press, 1951).
Reviewed by M. Ye. Al'tovskiy. Sov. Kniga, No. 6, 1952.

9. [REDACTED] Report U-3081, 16 Jan. 1953, Unclassified.

STILIN-BEK-CHURIN A.I.

✓ Hydrochemical zonality of underground waters in Mar-
time regions of the Russian platform. A. I. Stilin-Bek: 62
churia. Doklady Akad. Nauk S.S.S.R. 81, 671-2 (1951);
cf. C.A. 47, 13706a.—A brief description of hydrochem.
zonality of underground waters in 2 regions (the Baltic and
the northern Caspian) selected because of contrasts in their
morphology, geological history, and contemporary climate.
Differences in water types are considered in connection with
varying changes occurring in the Quaternary.
Harold J. Kandace

Lab. 3 Hydrogeol. Problems

SILIN-BEKCHURIN, A.I.

Hydrochemical sonality of the underground water of the synclinism near the Caspian. Invest. Akad. Nauk S.S.S.R., Ser. Geol. '52, 27-40.
(CA 47 no.22:12706 '53)

BOGOMOLOV, Gerasim Vasil'yevich; SILIN-BENKCHURIN, Aleksey Ivanovich;
GOMAN'KO, K.I., redaktor; ESTIN, M.L., redaktor; GUROVA, O.A.,
tekhnicheskiiy redaktor.

[Special hydrogeology] Spetsial'naya gidrogeologiya. Moskva,
Gos. nauchno-tekhn. izd-vo lit-ry po geologii i okhrane neдр,
1955. 246 p. (MLBA 9:5)

(Geology) (Water, Underground)

SMIRNOV, S.I. [translator]; ~~SILINA-BEKCHURIN~~, A.I., redaktor; SVET, Ya.M.,
redaktor; SHAPOVALOV, V.I., tekhnicheskii redaktor.

[Arid zone hydrology; a collection of articles. Translated from the
English] Gidrogeologiya i gidrologiya aridnoi zony zemnogo shara;
sbornik statei. Perevod s angliiskogo S.I. Smirnova. Pod red. i s
predisl. A.I. Silina-Bekchurina. Moskva, Izd-vo inostrannoi lit-ry,
1955. 372 p. (MIRA 9:4)

(Arid regions) (Water supply)

SILIN-BEKCHURIN, A.I.

Formation of the chemical composition of ground waters in arid regions. Biul.MOIP.Otd.geol. 30 no.1:91-93 Ja-F '55.(MLRA 8:5)
(Water, Underground)

15-57-10-14631
Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 10,
p 211 (USSR)

AUTHOR: Silin-Bekchurin, A. I.

TITLE: Chemical Composition of Ground Waters in Arid Regions
(K voprosu formirovaniya khimicheskogo sostava gruntovykh vod v aridnykh oblastyakh)

PERIODICAL: Uch. zap. Mosk. un-t, 1956, Nr 176, pp 175-193

ABSTRACT: Experiments were conducted to study chemical composition of ground waters in arid regions: 1) on successive leaching of salt-impregnated loams; 2) on the miscibility of some types of ground waters. For the first series of experiments loams from different depths of the Caspian plain were tested. The author describes four experiments on successive leaching of salt-impregnated loams. On the basis of these experiments he has established a transition from sodium sulfate to magnesium chloride and then to calcium chloride

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Chemical Composition of Ground Waters (Cont.)

15-57-10-14631

solutions. On repeated leaching of the same samples, he established that the exchange occurred in reverse order. In the first instance, salts accumulate in the solutions after the latter have filtered through the loams; in the second instance, each new solution washes the salts out of these same samples and gradually lowers their salt content. The second series of experiments is concerned with how certain types of ground waters blend, and particularly how sodium bicarbonate waters, such as are usually found in deposits of salts, blend with calcium chloride solutions. The experiments show that a change takes place in the chemical composition of solutions formed by infiltration of rain or fluvial waters through salt-impregnated ground, when these waters blend with waters of low mineral content. Thus, magnesium chloride solutions may result from a blending of calcium chloride solutions with alkaline waters, while alkaline solutions with an admixture of chlorides and sulfates originate from sodium sulfate solutions. Tables of data derived from the experiments are included.

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N. G. Borvinok

SHILIN-BOROVICH, A. I., Professor and PL. ANIKOV, N. A.

"Certain Laws of the Formation of Underground Water in Arid Zones of the Earth," Lomonosov Lectures in 1956, Vest. Mosk. U., Physico Math and Natural Sciences Series, 4, No. 6, pp 147-160, 1956, Geology Faculty

Translation U-3,054,363

SILIN-BEKCHURIN, A.I.; BOGORODITSKIY, K.F.

Influence of water on the underground gasification of coals. Dokl.
AN SSSR. 109 no.4:832-833 Ag 1956. (MIRA 9:10)

1. Laboratoriya gidrogeologicheskikh problem imeni F.P. Savarenskogo
Akademii nauk SSSR. Predstavleno akademikom N.M. Strakhovym.
(Coal gasification, Underground)

SILIN-BERKHURIN H.I. PoPov. I.V

X(4,5)

PHASE I BOOK EXPLOITATION

NOV/1975

Abstrakty nauch. SSSR. Komitet po geologii i geografii.

Tezisy dokladov na XI General'noy sesheniyeyevykh geologicheskoye i geograficheskoye sovyetov. Nauchnoissledovaniye akademiye nauchnyy glavnyy glavnyy (Abstracts of Reports Submitted to the 11th General Assembly of the International Union of Geodesy and Geophysics. The International Association of Scientific Hydrology) Moscow, 1977. 101 p. /Parallel texts in Russian and English or French/ 1,500 copies printed.

Be additional contributors mentioned

PURPOSE: This booklet is intended for hydrologists and civil engineers.

COVERAGE: This collection of abstracts covers reports presented at the 11th General Assembly of the International Union of Geodesy and Geophysics on hydrological, erosional, and glaciological processes. Studies related to problems of underground waters, seas, and rivers are also discussed. The abstracts are in Russian, with English or French translations. Those appearing in English are designated by a single asterisk; those in French by two. There are no references given.

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Silin-Berkhurin, A.I. Types of Hydrological Maps in Hydrology*	68
Chernov, N.V. Hydrological Maps and Their Importance in Evaluating the Water-Bearing Capacity and Reserves of Underground Water *	71
Avoyev, G.A. Glaciological Studies in the USSR *	74
Solov'yev, G.I. Physical Properties of a Snow Cover *	81
Shvetsov, P.F. Subject and Basic Problems in Glaciology in the USSR *	85
Shvetsov, P.F. Basic Problems in Modern Glaciology in the Light of Present-Day Studies by Soviet Scientists *	88
Armed, D.L. Problems in the Study of Russian Processes on the Territory of the USSR *	95

AVAILABLE: Library of Congress (DS33-A77)

Card 4/5

NOV/1975
S-21-75

~~OLIN-BRACHURIN~~ A. I., doctor geolog-mineralogicheskikh nauk, professor.

Drainage of Moscow Basin lignite deposits being gasified. Podzem.
gaz.ugl. no.2:65-67 '57. (MLRA 10:7)

1. Laboratoriya gidrogeologicheskikh problem Akademii nauk SSSR.
(Moscow Basin--Lignite) (Mine drainage)

~~SILIN-BEKCHURIN~~, Aleksey Ivanovich; SHILOVA, K.A., red.; YERMAKOVA, M.S.,
tekhn. red.

[Dynamics of underground water] Dinamika podzemnykh vod. [Moskva]
Izd-vo Mosk. univ., 1958. 257 p. (MIRA 11:9)
(Water, Underground)

514 IN BERKHURIN, H. I.

AUTHOR: None given 307/5-59-5-12/20

TITLE: The Hydrogeological Section (Gidrogeologicheskaya sektiya)

PERIODICAL: Byulleten' Moskovskogo obshchestva ispytateley prirody, Otdel geologicheskii, 1958, Nr 5, pp 151 - 153 (USSR)

ABSTRACT: The Hydrogeological Section of the Society. (Chairman- O.K. Lange, Secretary - N.P. Lobanova) heard the following reports. On 10 April 1958, by A.S. Dubil'yer, "The Question of Hydrochemical Zonality of Upper-Permian Deposits in the South Ural Region", and "The Berate Waters of the Trans-Kaba channels by G.Y. Faytserin. The following persons took part in the discussions: A.A. Alokhin, A.F. Yakushova, B.P. Navritskiy, S.V. Viktorov, B.P. Lobanova, K.A. Isenfontova and O.K. Lange. On 17 April 1958, by S.L. Lishkov, "Erosive Surfaces of Mountains, the Structure of Mountains and Hydrogeology", and by V.S. Samarin "The Geomorphology and the Hydrogeologic Map". The following persons took part in these discussions: S.I. Skolev, Z.V. Dmitriashko, M.A. Tsvetkovskaya, A.A. Konepnyatsev, A.S. Dubil'yer, K.V. Filatov, A.A. Brodskiy, V.B. Reymon. On May 15, by E.V. Filatov "The Basic Rules of the Hydrochemical Composition of Subterranean Waters of the Altay, and some Considerations on the Problem of Their Genesis", and by L.M. Gudochkina, "The Engineering and Geological Characterization of Rocks from the Altai-Ata Region". The following persons took part in the discussions: Ye.B. Yartsova, V.B. Popov, A.G. Zavidonova, B.P. Lobanova, Ye. V. Makhin, D.S. Sokolov and O.K. Lange. On May 22, by S.Y. Yaguzova, "The Geochemistry of Pore Waters from Quaternary and Pliocene Sediments of the Caspian Sea", and by Ch.Ya. Krol', "The Geochemistry of Pore Solutions of Carboniferous Deposits of the Moscow Oblast". The following persons took part in the discussions: V.B. Popov, A.A. Gavryukhina, G.L. Stetsikov, V.F. Bel'skaya, Ch. Ya. Krol', A.G. Zavidonova and O.K. Lange. On May 29 1958, the reports were made by A.I. Silin-Bekhtin, "Some Problems of Hydrogeology in North Africa and Hindustan" and by A.G. Zavidonova "The Devonian Waters of the Tashkent Oblast". The following persons took part in the discussions: Ye.B. Makhin, A.G. Zavidonova, M.A. Tsvetkovskaya, A.S. Dubil'yer, O.K. Lange and A.I. Silin-Bekhtin.

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Card 2/3

AUTHOR: Silin-Bekchurin, A.I. SOV/5-58-5-19/20

TITLE: Some Problems of Hydrogeology in North Africa and Hindustan
(Nekotoryye voprosy gidrogeologii Severnoy Afriki i Indostana)

PERIODICAL: Byulleten' Moskovskogo obshchestva ispytateley prirody,
Otdel geologicheskoy, 1958, Nr 5, p 159 (USSR)

ABSTRACT: The author sums up the report he read on 29 May, 1958 in
the Hydrogeological Section of the Society. The author,
as a scholarship student of UNESCO visited North Africa
and Hindustan and studied the problem of hydrogeology in
arid countries.

Card 1/1

Zeit und -Befugnis, nicht, A I

AUTHOR:

Salmon, F. A.

SOV/7-58-6-14/16

TITLE:

Shimodole - 111 Union Conference on Geochemical and Radiometric Methods of Search and Prospecting for ~~Sub-~~ Land and Natural Gas Deposits (Khronika - Vsesoyuznoye soveshchaniye po geokhimicheskoy i radiometricheskim metodam poiskov i razvedki neftyanykh i gazovykh mestorozhdenii) I

PERIODICAL:

Geokhimiya, 1953, No 5, pp 610 - 611 (USSR)

ABSTRACT:

The conference took place in Moscow from April 21 to April 26, 1955 on a proposal of the Gosstekhnika to the AS USSR. 60 organizations were represented by about 240 members of the AS USSR, its branches, the Academies of the Republics of the Union, of a number of high schools, of single institutes and production organizations of the Ministerstvo geologii i okhrany nedr (Ministry of Geology and Protection of Natural Resources), of the Gosplan SSSR and RSFSR, of the Gosudarstvennyy nauchnotekhnicheskiy komitet Soveta Ministrov SSSR (State Scientific and Technical Committee of the Council of Ministers of the USSR), of Councils of National Economy and other organizations. Other active participants were scientists from the German Democratic

Card 1/4

Chronicle - All Union Conference on Geochemical and Radiometric Methods of Search and Prospecting for Mineral Oil and Natural Gas Deposits. I SOV/7-58-6-14/16

Republics, Czechoslovakia, Poland, Rumania and Yugoslavia. D. I. Sutherbaker, Member Academy of Sciences, USSR, Academician Secretary of the Otdeleniye geologo-geograficheskikh nauk (Department of Geographical Sciences) opened the conference. 26 main reports were given. 65 Soviet experts and 7 foreign scientists contributed with information and reports. They may be divided into 3 groups: 1. General theoretical problems (6 reports); 2. Methods, equipment and equipment for the search and prospecting of petroleum and natural gas deposits (7 reports); 3. Practical application of the methods and analysis of the results in search and prospecting of mineral oil and natural gas deposits (7 reports). A. A. Sadykov spoke about migration of chemical elements, V. A. Scholov about the scientific bases of geochemical prospecting methods. S. I. Kuznetsov dealt in his report with microbiological prospecting methods. F. A. Alekseyev discussed the scientific basis of the radiometric prospecting method (reduced gamma intensity field). A. I. Silin-

Card 2/4

Chronicle - All Union Conference on Geochemical and Radiometric Methods of Search and Prospecting for Petroleum and Natural Gas Deposits. I

SOV/7-58-6-14/16

Bekchurin spoke about the movement of deep subterranean waters. A. B. Ronov reported on investigation results dealing with the distribution of organic carbon in the sedimentary rocks of the Russian Platform. Methods and technique were the subject of the following reports: G. A. Mogilevskiy - The present stage of the problem of anomaly of gas bacteria and a suitable method for its solution; Ye. A. Bata - hydrochemical investigations in prospecting for petroleum and natural gas; V. A. Kovda and P. S. Slavin - soil geochemical features for the yield of petroleum and natural gas to be expected; V. N. Florovskaya - a luminescence-bituminological method for the investigation and prospecting of natural gas and petroleum deposits; V. A. Sokolov - gasanalytical method and equipment and ways to complete them; and others. The use of geochemical methods in various regions of the USSR was also treated: Timano-Petcherskaya gazoneftennaya provintsiya (A. N. Kravtsov, G. G. Grigor'yev, A. S. Medvedev), Saratovskoye Povolzh'ye (Ye. M. Geller), Stavropol'ye

Card 3/4

Chronicle - All Union Conference on Geochemical and Radiometric Methods of Search and Prospecting for
Petroleum and Natural Gas Deposits. I

SOV/7-58-6-14/16

(V. N. Kortsunshcheyn), Kola Peninsula (I. A. Petersil's)
and others

Card 4/4

AUTHOR: Sokolov, V. A., Professor

Doc. 30-58-7-36/49

TITLE: Geochemical and Radiometrical Methods of Search and Prospecting for Deposits (Geokhimicheskiye i radiometricheskiye metody poiskov i razvedki mestorozhdeniy) Transactions of the Conference in the Department of Geological and Geographical Sciences (Soveshchaniye v otdelenii geologo-geograficheskikh nauk)

PERIODICAL: Vestnik Akademii nauk SSSR, 1958, Nr 7, pp. 125 - 126 (USSR)

ABSTRACT: This conference took place April 21st to April 26th. Apart from the members of the academic and scientific branch research institutes representatives of the geological research institutes, of the economic councils of the Gosplan, of the State Committee of New Technology (Gosudarstvennyy komitet po novoy tekhnike), of the Ministry of Geology and Protection of Mineral Resources (Ministerstvo geologii i okhrany nedr) participated as well as scientists from the countries of the people's democracies. The Member, Academy of Sciences, USSR, D.I. Shcherbakov opened the conference. Further reports were delivered by: 1) A.A. Saukov, Corresponding Member of the AS USSR investigated geochemical prospecting methods. 2) V.A. Sokolov analysed the scientific

Card 1/4

Geochemical and Radiometrical Methods of Search and Prospecting for Deposits. Transactions of the Conference in the Department of Geological and Geographical Sciences 30-58-7-36/49

foundations of geochemical prospecting methods and of the prospecting for gas and mineral oils.

3) S.I.Kuznetsov spoke about microbiological prospecting methods of deposits of mineral oil and gas.

4) F.A.Alekseyev reported on the radiometrical prospecting methods of deposits of mineral oil and gas.

5) A.I.Silin-Bekchurin spoke about the movements of deep ground waters and

6) A.B.Ronov about "Organic carbon in sedimentary rocks of the Russian Plain" (Russkaya platforma)

7) G.A.Mogilevskiy outlined "The present state of the problem concerning the bacteriological anomalies of gas."

8) Ye.A.Bars reported on "Results of hydrochemical research work obtained in the course of prospecting for mineral oil."

9) V.A.Kovda and P.S.Slavin reported on "Geochemical soil data concerning the mineral oil and gas content."

10) V.N.Florovskaya spoke about "The luminescence method for the purpose of investigation and prospecting for deposits of mineral oil and gas."

11) M.S.Gurevich gave a report on "the importance of the geochemical

Card 2/4

Geochemical and Radiometrical Methods of Search and 30-58-7-36/49
Prospecting for Deposits. Transactions of the Conference in the Department
of Geological and Geographical Sciences

zones of ground water for mineral oil prospecting.

12) V.A. Sokolov, N.M. Turkel'taub and A.A. Zhukhovitskiy spoke about "Gas analytical methods and apparatus for geochemical research.

13) B.P. Yasenev and Yu.M. Yurovskiy reported on "gas surveying work in the northern Caucasus (Severnnyy Kavkaz).

14) A.Ya. Krems, G.G. Grigor'yev and A.S. Medvedev spoke about "the experimental application of geochemical methods of prospecting on the territory of the province of Timano-Pechorsk which is rich in mineral oil and natural gas."

15) I.A. Petersil'ye reported on work dealing with gas-containing intrusive massives of the Kola peninsula (Kol'skiy poluostrov).

16) Ye.M. Geller investigated some problems of the geochemical finding of gas and mineral-oil-containing deposits in the rock.

17) V.N. Kortsenshteyn spoke about the mechanism of gas deposit formation in the region of Stavropol'.

18) A.L. Geodekyan and G.A. Mogilevskiy gave a survey on research work in the field of geochemical methods carried out abroad.

Card 3/4

Geochemical and Radiometrical Methods of Search and 30-58-7-36/49
Prospecting for Deposits. Transactions of the Conference in the Department
of Geological and Geographical Sciences

Furthermore, reports by foreign participants from the German Democratic Republic, Roumania (Rumyniya), Poland (Pol'sha), Czechoslovakia (Chekhoslovakiya) and Hungary (Vengriya) were heard. The conference found that the theoretical work is carried out on an insufficiently wide scope and that a number of problems is still little investigated. The methods of investigation are practically still insufficiently used. The decisions of the members contain advice for the future.

Card 4/4

SILIN-BEKCHURIN, A.I.

Zonal and azonal processes in the formation of underground waters.
Trudy Lab.gidrogeol.probl. 16:181-186 '58. (MIRA 12:2)

1. Laboratoriya gidrogeologicheskikh problem imeni F.P. Savarenskogo
AN SSSR.

(Water, Underground)

SILIN-BEKCHURIN, A.I.

Hydrodynamic and hydrochemical characteristics of the Baltic
Sea region. Trudy Lab.gidrogeol.probl. 20:3-28 '58.

(MIRA 12:5)

(Baltic Sea region--Water, Underground)

SILIN-BEKCHURIN, A.I., referent

Hydrogeology of North Africa and Hindustan. Biul. MOIP. Otd. geol. 33 no.5:
159 S-O '58. (MIRA 12:1)
(Africa, North--Water, Underground) (India--Water, Underground)
(Pakistan--Water, Underground)

SHIN, BERCHURIN, Aleksey Ivarovich; BOGORODITSKIY, Konstantin Fedorovich;
KONONOV, Vladimir Ivanovich; BOGOMOLOV, G.V., doktor geol.-mineral.
nauk, otv.red.; FILIPPOVA, B.S., red.izd-va; RYLINA, Yu.V., tekhn.
red.

[Role of underground water and other natural factors in under-
ground coal gasification; from observations in the Moscow and
Lisichansk "Podzemgas" stations.] Rol' podzemnykh vod i drugikh
prirodnykh faktorov v protsesse podzemnoi razifikatsii uglei; na
primere Podmoskovnoi i Lisichanskoi stantsii "Podzemgaza."
Moskva, Izd-vo Akad.nauk SSSR, 1960. 125 p. (Akademiia nauk
SSSR. Laboratoriia gidrogeologicheskikh problem. Trudy, vol.23).
(MIRA 13:12)

(Coal gasification, Underground) (Water, Underground)

KUDELIN, Boris Ivanovich; BOGOMOLOV, G.V., prof., retsenzent; MAKARENKO, F.A., prof., retsenzent; ~~SILIN-BEKCHURIN, A.I.~~, prof., retsenzent; TOLSTIKHIN, N.I., prof., retsenzent; PADDZYKVA, I.I., red.; YERMAKOV, M.S., tekhn.red.

[Principles underlying regional estimation of natural resources of underground waters] Printsipy regional'noi otsenki estestvennykh resursov podzemnykh vod. Moskva, Izd-vo Mosk.univ., 1960. 343 p.
(MIRA 14:4)

(Water, Underground)

SILIN-BERKHURIN, A.I., prof.; BOGOMOLOV, G.V., prof., akademik, otv.
red.; ERTIN, M.L., red. izd-va; POLYAKOVA, T.V., tekhn. red.

[Underground waters of North Africa] Podzemnye vody Severnoi
Afriki. Moskva, Izd-vo Akad. nauk SSSR, 1962. 201 p.
(MIRA 15:10)

1. Akademiya nauk Belorusskoy SSSR (for Bogomolov).
(Africa, North--Water, Underground)

BOGOMOLOV, G.V.; VALEDINSKIY, V.I.; KOCHNEV, S.S.; MANIS, M.N.; PANTELEYEVA,
Ye.N.; POPOV, I.V.; SYROVATKIN, V.G.; FOMICHEV, M.M.;
BOGORODITSKIY, K.F.; DUKHANINA, V.I.; KRASINTSEVA, V.V.;
MAKARENKO, F.A.; POKROVSKIY, V.A.; SILIN-BEKCHURIN, A.I.;
POMIN, V.M.; SHAGOYANTS, S.A.

Il'ia Il'ich Kobosev; obituary. Trudy Lab.gidrogeol.probl.
42:101-102 '62. (MIRA 15:8)
(Kobosev, Il'ia Il'ich, 1908-1961)

KUDELIN, B.I.; SILIN-BEKCHURIN, A.I.

Concerning the book "Conditions in Uzbekistan from the point of
view of hydrology and engineering geology." Uzb.geol.zhur. 7 no.
5:88-89 '63. (MIRA 17:3)

SILIN-BEKCHURIN, Aleksey Iyalevich; TATARINOVA, Ye.I., red.; BABUSHKIN, V.D.,
doktor tekhn.nauk, nauchn.red.; KUDELIN, B.I., doktor geol.-miner.
nauk, prof., nauchn. red.; PLOTNIKOV, N.I., doktor geol.-miner.
nauk, prof., nauchn. red.

[Dynamics of underground waters; with the fundamentals of
hydraulics] Dinamika podzemnykh vod; s osnovami gidravliki.
Moskva, Izd-vo Mosk. univ., 1965. 379 p.

(MIRA 18:11)

L 14681-66 EWT(m)/EPF(n)-2/EWA(h)
ACC NR: AP6008257

DM
SOURCE CODE: UR/0089/65/019/002/0181/0183

AUTHOR: Andreyev, O. L.; Silin, Yu. S.; Stukov, G. M.; Fominykh, V. I.;
Shchebolev, V. T.; Yaritsyna, I. A.

72
B

ORG: none

TITLE: International comparison of neutron sources 19, 44, 55

SOURCE: Atomnaya energiya, v. 19, no. 2, 1965, 181-183

TOPIC TAGS: neutron distribution, radioactive source, neutron, radium, beryllium, radiation counter

ABSTRACT: The relative measurements of the Canadian Ra-Be neutron source were carried out considering the neutron distribution in open geometry and using a long counter which could turn the source at any required angle. With the source axis of rotation coinciding with the cylinder axis, the asymmetry was 1% and with the source axis turned to the side of the surface it was 1.5%. The relative measurements for the source indicated 3.25 neutrons/sec. Orig. art. has 2 figures and 1 table. NA7

SUB CODE: 20, 18 / SUBM DATE: 13Oct64 / ORIG REF: 003 / OTH REF: 005

Card 1/1 BC

UDC: 539.16.08: 539.125.5
2

L 2983-66 EWA(k)/FED/EWT(l)/EWT(m)/EPF(c)/REC(k)-2/T/EWP(t)/EWP(k)/EWP(b)/
 ACCESSION NR: AP5024051 EWA(m)-2/EWA(h) SCTB/ UR/0057/65/035/009/1678/1684
 WG/JD LJP(c) 537.523.7

AUTHOR: Krindach, N. I.; Silin-Bekchurin, I. A.; Tunitskiy, L. N.; Cherkasov, Ye. M.

TITLE: Study of a high-frequency discharge in a neon-helium laser

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 35, no. 9, 1965, 1678-1684

TOPIC TAGS: gas laser, neon helium laser, hf discharge, plasma discharge

ABSTRACT: A new method is proposed for determining the current and voltage distribution along a high-frequency discharge and a study is made of the effect on laser operation of inhomogeneities along such a discharge. The method is based on the assumption that the voltage and current at any cross section of a discharge tube can be determined by the distance of that cross section from the end of the glowing portion of discharge. This assumption holds for any stationary discharge at any cross section of which electron rise due to ionization is a unity. The experiments were carried out by means of a gas laser ($\lambda = 6328 \text{ \AA}$) (see Fig. 1 of the Enclosure) which incorporated a fused-quartz discharge tube 1.7 cm long and 8 mm in diameter (internal) filled with a neon — helium mixture at a 10:1 ratio at a pressure of 0.8 mm Hg. Two plane-parallel quartz plates O_1 and O_2 were

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L 2983-66

ACCESSION NR: AP5024051

2

placed at the tube ends at Brewster's angle. The equivalent circuit of the discharge tube is shown in Fig. 2. The tube was placed between the two confocal dielectric mirrors M with a 2-m radius of curvature and an $\sim 1\%$ transmission around 6328 \AA . The mirrors were adjusted by means of an AKT-400 collimator. The discharge tube was fed by a 30-Mc frequency from an h-f oscillator, whose voltage was supplied to 8-cm electrodes E_1 and E_2 , while electrodes E_3 , E_4 , and E_5 (2.5 cm each) were grounded. The oscillator was L-coupled to the discharge tube and the currents I_1 and I_2 and voltages V_1 and V_2 were measured by T-22 hot-wire ammeters and S-95 electrostatic voltmeters (4-pf input capacitance) respectively. The output energy was measured by means of a calibrated thermopile. The capacity of the discharge tube, varied by a movable ground rod R placed above the tube, was determined by its distance from R. In the experiments a discharge with a maximum length of 35 cm was studied. The experimental method and results are discussed in detail and indicate good agreement with computed data. Orig. art. ha: 1 table and 7 figures. [YK]

ASSOCIATION: Fizicheskii institut imeni P. N. Lebedeva AN SSSR, Moscow (Physics Institute, AN SSSR)

SUBMITTED: 18Jan65
NO REF SOV: 004

ENCL: 02
OTHER: 006

SUB CODE: EC
ATD PRESS *4100*

L 2983-66

ACCESSION NR: AP5024051

ENCLOSURE: 01

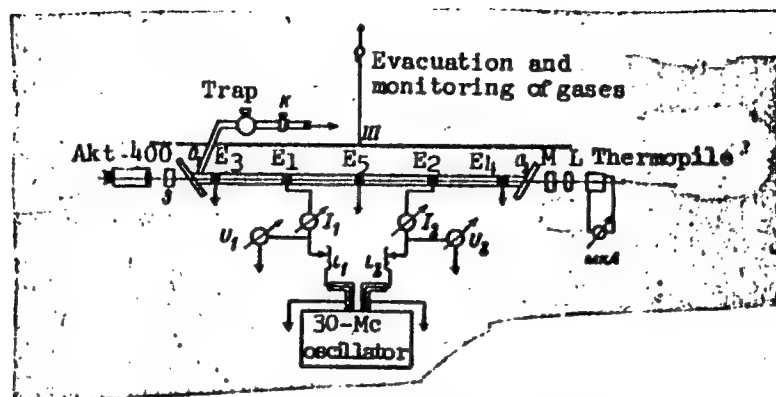


Fig. 1. Schematic of the laser

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ACCESSION NR: AP5024051

ENCLOSURE: 02

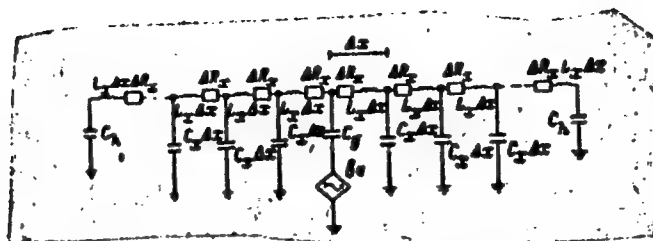


Fig. 2. Equivalent circuit of the discharge tube

BVK
Card 4/4

Silina, A.A.

✓ 7.4-222 551.573
GP Ivanov, L. A.; Silina, A. A.; Zhmur, D. G. and Tselaiker, I.U.L., Ob opredelenii transpiratsionnogo rashoda drevostoev lesa. [On the determination of transpiration by a forest stand.] *Botanicheskiy Zhurnal*, Moscow, 36(1):5-20, 1951. 11 tables, refs. DLC-3
Method of quick weighing of tree leaves tested and applied for a region near Moscow. Transpiration intensity of 17 tree species was determined in more than 6000 cases. Statistical tabulation of observational materials shows that during the growing season good relation exists between the air temperature and the transpiration intensity. Correlation coefficients were 0.65-0.95. Transpiration rates at sufficient moisture supply are presented for each species, arranged by temperatures from 4° to 29°C. *Subject Heading*: 1. Transpiration of forests.—N. T. Zikess.

7.1-170

591.573:551.579.5

Ivanov, L. A., Silina, A. A. and Tsel'miker, I. U. L., O transpiratsii poleznakhchivnykh porod v usloviakh Derkul'skoi stepi. [Transpiration of wind shelter plants under conditions of the Derkul' steppe.] *Bol'shicheskii Zhurnal*, Moscow, 37(2):113-127, 1952. fig., 8 tables, refs. DLC—Transpiration rates of different kinds of trees are given for a region of ample moisture supply (near Moscow) and the Derkul' steppe. Temperature, solar radiation and saturation deficit are higher in the steppe, but the transpiration nevertheless lower. Correlation with temperature is high at sufficient moisture supply (up to 0.98) and low or even negative in the steppe. No relation to wind speed. Subject Headings: 1. Transpiration of trees 2. Moscow Region 3. Derkul' Steppe, Kazakhstan.—A.A

GP

(2)

IVANOV, A.A.; SILINA, A.A.; TSEL'NIKER, Yu.L.

On the transpiration of shelterbelts on the Derkul Steppe. Bot.zhur. 38
no.2:166-184 Mr-Apr '53. (MLRA 6:6)

1. Derkul'skaya opytnaya stantsiya Instituta lesa AN SSSR.
(Derkul Steppe--Trees) (Plants--Transpiration)

IVANOV, L.A.; SILINA, A.A.

Actinometric determination of forest transpiration in connection
with energy relations in different forested areas. Fiziol.rast.
2 no.4:313-319 J1-Ag'55. (MIRA 8:12)

1. Institut lesa Akademii nauk SSSR, Moscow
(Plants--Transpiration)

SILINA, A.A.

Transpiration in tree species in the Tellermanovskii Forest.
Fiziol.rast.2 no.4:364-372 J1-Ag'55. (MLRA 8:12)

1. Institut lesa Akademii nauk SSSR, Moscow
(Borisoglebsk Forest--Plants--Transpiration)

SILINA, A.A.

Effect of transpiration in some tree species on transpiration
in other species growing in mixed forest-steppe stands. Trudy
Inst. lesa 41:96-103 '58. (MIRA 12:1)
(Forest ecology) (Plants--Transpiration)

SILINA, A.A.

Transpiration in early- and late-opening oak races in the forest-
steppe. Trudy Inst. lesa 41:104-110 '58. (MIRA 12:1)
(Oak) (Plants--Transpiration)

SILINA, A. D.

28988

Sluchay makhrovesti v tsvyetskakh l'vinogo eyava. Priroda, 1949, No. 9, C. 71-72.

SO: Letopis' No. 34

YUNUSOVA, A.N.; MEL'NIKOVA, N.A.; BEREGOVSKAYA, Z.I.; ZAKIROVA, M.I.;
SILINA, A.G.

Nutrition of children in preschool boarding establishments in Kazan
and suggestions for its improvement. Kaz. med. zhur. no.4:84-88 J1-Ag
'61. (MIRA 15:2)

1. ~~Kafedra~~ ~~gigiyeny~~ pitaniya (zav. - dotsent A.N.Yunusova) Kazanskogo
meditsinskogo instituta i gorodskoy sanepidstantsii (glavnyy vrach -
A.N.Krepysheva). (KAZAN__CHILDREN__NUTRITION)

L 02435-67 EWT(d)/EWP(1) IJP(c)

ACC NR: AP6027322

(N)

SOURCE CODE: UR/0043/66/000/002/0107/0114

AUTHOR: Silina, A. S.

ORG: none

TITLE: An evaluation of the effect of a discrete control signal on side movement of an aircraft on landing

SOURCE: Leningrad. Universitet. Vestnik. Seriya matematiki, mekhaniki i astronomii, no. 2, 1966, 107-114

TOPIC TAGS: optimal control, numerical solution, aircraft control, *AIRCRAFT LANDING SYSTEM*

ABSTRACT: The effect of control by discrete signals on the lateral movement of an airplane are studied under the assumption that the radio control signal is continuous within discrete intervals of up to two seconds. Calculations are given to support the reasonableness of this assumption. Lateral movement of the aircraft is studied because of the interest of the problem of discreteness of control signals on list and yaw, lateral movement due to wind, etc. Equations are derived for lateral movement of a semi-automatically controlled airplane on the glide path (landing). A numerical solution is given for the resulting system of equations and these results are presented in tabular and graphical form. Orig. art. has: 9 formulas, 3 figures, 3 tables.

SUB CODE: 01/

SUBM DATE: 25Dec64/

ORIG REF: 002

UDC: 533.601.3

Card 1/1 *gt*

L 04934-67	EWT(d)	IJP(c)	23 22 B
ACC NR:	AP6028361	SOURCE CODE: UR/0043/66/000/003/0083/0090	
AUTHOR: <u>Silina, A. S.</u>			
ORG: none			
TITLE: An estimate of the influence of discrete control signals on the lateral motion of aircraft during <u>corrected landing</u> <u>a</u>			
SOURCE: <u>Leningrad. Universitet. Vestnik. Seriya matematiki, mekhaniki i astronomii</u> , no. 3, 1966, 83-90			
TOPIC TAGS: aircraft control equipment, aircraft landing system, discrete automation			
ABSTRACT: Using the simplest correction scheme based on aircraft-recorded velocity data, the author investigates the discrete signal correction method. An analysis of comprehensive theoretical calculation of the side-slip equation solution shows that during landing approach speeds of the order of 100 cm/sec it is possible to use a discrete signal control with up to 10 sec intervals. In the case of speeds approaching 200 m/sec, the discrete signal must be smoothed out (this can be achieved with even the simplest schemes). The tuning of the correction system requires the solution of the simplest system of equations of motion of the			
Card 1/2	UDC: 533.601.3		

L 04934-67

ACC NR: AP6028361

aircraft. The author thanks Prof. I. P. Ginzburg for valuable advice. Orig. art. has: 26
formulas, 5 tables, and 2 figures.

SUB CODE: 01, ⁰⁹~~12~~ SUBM DATE: 25Dec64/ ORIG REF: 003

kh

Card 2/2

BELOSTOTSKIY, Isaak Abramovich; MURAVNIK, Faina Savel'yevna; SILINA,
Alevtina Vasil'yevna; MAKAROV, V.I., red.

[Multiple-unit TS-1 trolleybus] Sochlenyyi trolleibus TS-1.
Moskva, Stroiizdat, 1965. 171 p. (MIRA 18:8)

SILINA, E.M.

Importance of certain reactivity indicators in chronic nutritional disorders in children [with summary in English]. *Pediatrics* 36 (MIRA 11:6)
no.5:29-34 My '58

1. Iz doma rebenka No.2 Sverdlovskaya (glavnyy vrach T.S. Kuklina, nauchnyy rukovoditel' - zav.kafedroy nervnykh bolezney Sverdlovskogo meditsinskogo instituta prof. D.G. Shefer).
(CHILDREN--DISEASES)

SILINA, E.M.; KHARITONOVA, A.V.

Dynamics and structure of blood system diseases and hemorrhagic diatheses in children. Vop. okh. mat. i det. 5 no.6:30-32 N-D '60.
(MIRA 13:12)

1. Iz Sverdlovskogo nauchno-issledovatel'skogo instituta okhrany materinstva i mladenchestva (direktor - kand.med.nauk R.A.Malyshova, nauchnyy rukovoditel' - dotsent R.Ye.Leyenson) i kafedry detskikh bolezney (zav. - dotsent A.F.Bobyleva) Sverdlovskogo gosudarstvennogo meditsinskogo instituta (direktor - prof. A.F.Zverev).
(BLOOD—DISEASES) (DIATHESIS)

ALFEROV, Zh.I.; SILINA, E.V.

Effect of the surface state on the breakdown voltage of silicon
alloy diodes. Fiz.tver.tela 1 no.12:1878-1879 D '59.
(MIRA 13:5)

1. Fiziko-tekhnicheskiy institut AN SSSR, Leningrad.
(Diodes)

L 52235-65 EPF(c)/EPA(s)-2/EWT(m)/EWG(m)/EWP(b)/EWP(1) Pr-4/Pt-7 IJP(c)
 RLW/JD/JW/JG
 ACCESSION NR: AT5012663 UR/2539/63/000/044/0020/0023 ³²
³¹
^{B+1}

AUTHOR: Silina, E. Yu.; Khachatryan, T.A.

TITLE: Temperature dependence of the saturated vapor pressure of mercury selenide ²⁷ ²⁷

SOURCE: Moscow. Khimiko-tekhnologicheskii institut. Trudy, no. 44, 1963. Issledovaniya v oblasti fizicheskoy khimii, analiticheskoy khimii i elektrokhimii (Research in the field of physical chemistry, analytical chemistry and electrochemistry), 20-23

TOPIC TAGS: mercury selenide, mercury selenide vapor pressure, mercury selenide sublimation, vapor pressure determination

ABSTRACT: The purpose of this work was to determine the saturated vapor pressure of mercury selenide (HgSe) in the range 240-500C. Between 500 and 340C, the vapor pressure was determined by the flow method from the weight loss and between 325 and 240C, by Knudsen's effusion method. The results of measurements made by both methods are described by the equation $\log P = 9.032 - \frac{5976}{T}$, obtained by the least-squares method.

From the slope of this curve, ΔH_{subl} was found to be 27.3 kcal/mole. In their treatment of the results, the authors adopted the molecular weight corresponding to the formula HgSe.

Card 1/2

L 52235-65

ACCESSION NR: AT5012663

However, since there are indications in the literature that HgSe dissociates in the vapor, the data obtained represent some arbitrary pressure which reflects the vaporization rate of HgSe and is proportional to the vapor pressure of HgSe . Orig. art. has: 2 tables, 1 figure, and 4 formulas.

ASSOCIATION: Moskovskiy khimiko-tekhnologicheskii institut (Moscow Chemical Engineering Institute)

SUBMITTED: 00

ENCL: 00

SUB CODE: GC

NO REF SOV: 011

OTHER: 003

Card

2/2 *7/8*

SILINA, E.Yu.; KHACHATURYAN, T.A.

Accounting for the effect of thermal diffusion in the determination of saturated vapor pressure by the gas stream method. Trudy MKHTI no.44:13-19 '64. (MIRA 18:1)

Temperature dependence of the pressure of mercury selenide saturated vapor. Ibid.:20-23

L 24786-65 EPF(c)/EPA(s)-2/EWT(m)/EWP(b)/ENF(t) Pr-4/Pt-10 IJP(c) RDW/
 ACCESSION NR: AP4049619 JW/JD/JG S/00'6/64/038/011/2733/2735 34
 33
 B

AUTHOR: Silina, E. Yu.; Karapet'yants, M. Kh.

TITLE: Temperature dependence of the pressure of saturated mercury telluride
 vapors 27 27

SOURCE: Zhurnal fizicheskoy khimii, v. 38, no. 11, 1964, 2733-2735

TOPIC TAGS: saturated vapor pressure, mercury telluride vapor, vapor pres-
 sure temperature dependence 7

ABSTRACT: The pressure of saturated mercury telluride vapors as a function of
 temperature has been measured by the Knudsen method in the range from 215 to
 309 C and by the flux method from 292 to 388 C. The results are described by
 the equation

$$\log P = -(5640/T) + 9.13 \text{ (mm Hg)}$$

It is deduced from this equation that $\Delta H_{\text{subl}} = 25.6 \text{ kcal/mole}$. Orig. art. has:
 2 figures and 1 table

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ACCESSION NR: AP4049819

ASSOCIATION: Moskovskiy khimiko-tekhnologicheskiy institut im.
D. I. Mendeleeva (Moscow Institute of Chemical Technology)

SUBMITTED: 24Dec63

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Card 2/2

SILINA, E.Yu.; KARAPET'YANTS, M.Kh.

Temperature dependence of the saturated vapor pressure of
mercury telluride. Zhur.fiz.khim. 38 no.11:2733-2735 N 164.
(MIRA 18:2)

1. Moskovskiy khimiko-tekhnologicheskoy institut imeni
Mendeleeva.

CHILINA, E.Yu.; KARAFET'YANTS, M.Kh. (Moscow)

Determination of saturated vapor pressure by the flow method
under conditions of significant thermodiffusion effects. Zhur.
fiz. khim. 38 no.12:2907-2912 D 1962. (MIRA 18:2)

1. Moskovskiy khimiko-tekhnologicheskii institut imeni D.I.
Mendeleeva.

M *SILINA, G.F.* *21*

PROCESSES AND PROPERTIES INDEX

Lithium and Its Use. (1. P. Silina (Kozlovskaya), 1980, (1)
44 (17). [In Russian.] A review. D. N. N.

ASD-SLA METALLURGICAL LITERATURE CLASSIFICATION

LITHIUM										SODIUM										POTASSIUM										AMMONIUM									
LITHIUM										SODIUM										POTASSIUM										AMMONIUM									
LITHIUM										SODIUM										POTASSIUM										AMMONIUM									
LITHIUM										SODIUM										POTASSIUM										AMMONIUM									

SILINA, G. F.
M

Rare Elements are Obtaining Wide Industrial Application. F. G. Silina
(*Kredkie Metalli (Rare Metals)*, 1966, (3), 43-44).—[In Russian.] Statistics of
output and use of beryllium, bismuth, niobium, cadmium, molybdenum,
titanium, selenium, tellurium, zirconium, gallium, indium, germanium, and
thorium.— D. N. N.

ASD 15 A METALLURGICAL LITERATURE CLASSIFICATION

7. Manufacturing articles of pure beryllium and beryllium oxide for use in nuclear reactors. *G. A. Moersel, C. E.

Alexis N. Pestoff

288

AUTHOR: Silina, G.F., Zarembo, Yu.I. and Kaplan, G.E.
TITLE: Modern methods in beryllium technology (Sovremennye metody tekhnologii berilliya.)
PERIODICAL: "Tsvetnye Metally" (Non-ferrous Metals), 1957, No. 1, pp. 66 - 71, (U.S.S.R.)

ABSTRACT:

This is a review of recent developments in the metallurgy of beryllium, especially in connection with atomic energy. The work discussed is almost entirely non-Russian; Russian work considered is that reported at the Geneva Conference on the peaceful uses of atomic energy, 1955. It is suggested that in the U.S.S.R. future work on beryllium production should be directed to improving the yield, automation of process operation, development of new and cheaper methods of obtaining beryllium compounds and the pure metal and the utilisation of low-grade (less than 10% BeO) concentrates. There are 14 references, of which 1 is Russian.

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S/136/60/000/012/005/010
E193/E183

AUTHORS: Silina, G.F., and Grinberg, L.L.

TITLE: Electrolytic Refining of Beryllium

PERIODICAL: Tsvetnyye metally, 1960, No. 12, pp. 47-53

TEXT: The object of the present investigation was to develop an electrolytic process of refining beryllium that would produce material sufficiently pure to be suitable for nuclear engineering applications. The laboratory experiments were carried out in quartz vessels. Nickel strip cathodes and commercial grade beryllium anodes, made by the powder metallurgy technique (hot or cold pressing), were used. To avoid contamination of the metal by chlorine (in the form of beryllium oxichloride), an electrolyte, consisting of KF-NaF-2BeF_2 and melting at approximately 600°C , was first tried. The current efficiency attained was low; the metal was deposited in a finely-crystalline form and difficulties were experienced in washing off the solidified electrolyte. Since the KCl-NaCl-2BeF_2 mixture proved unsatisfactory for the same reasons, the electrolyte normally used in electrolytic extraction of beryllium, and consisting of approximately equal proportions

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Electrolytic Refining of Beryllium

of beryllium and sodium chlorides (melting point equal 220 °C), was employed in subsequent experiments. The results of tests in which the cathode current density was varied between 4 and 16 amp/dm², showed that up to 12 amp/dm² the current efficiency remains practically constant and a compact beryllium deposit, consisting of bright crystals, is produced. When the current density was increased to 16 amp/dm², a small quantity of spongy deposit was formed. The beryllium anodes contained 4 to 5 x 10⁻²% Fe, 1 to 5 x 10⁻²% Al, 2 x 10⁻²% Cu, 1 x 10⁻³% Mn, and 5 x 10⁻²% Ni. Variation of the anode current density between 6 and 50 amp/dm² hardly affected the impurity content of the cathode deposit, which contained 1 to 3 x 10⁻³% Fe, 3 x 10⁻³% Al and Ni, 1.5 x 10⁻³% Cu, and 10⁻³% Mn. Determination of the current efficiency was the object of the next series of experiments, carried out under the optimum conditions, i.e.: current 3 to 4 amp; cathode current density 8.8 to 12 amp/dm²; temperature 340 °C; voltage 0.3 to 0.5 V. It was found that

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the time required for the current efficiency to attain a steady value was the same (about 24 h), irrespective of the purity of BeCl_2 in the electrolyte, but the maximum current efficiency attained was lower when impure BeCl_2 was used. The current efficiency and recovery attained in a 180-hour test were 85 and 83% respectively. Under these conditions, 50% of beryllium was deposited in the form of large, plate-like crystals and 50% in the form of smaller grains, strongly adhering to the cathode. The laboratory experiments were repeated on a somewhat larger scale, after which long-term tests were conducted in a pilot plant. In view of promising results obtained, a series of tests on an industrial scale was carried out. A standard bath for electrolytic extraction of beryllium was used for this purpose. The anode consisted of seven beryllium powder compact rings (each weighing 1 kg), suspended on a graphite rod. Before starting the refining operation, the bath was operated for a short period with a graphite anode, in order to remove from the electrolyte those metallic impurities which are more electro-positive than beryllium.

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The voltage and current employed were 5.5 V and 800 amp. The electrolyte (50:50 BeCl₂:NaCl) was replenished from an adjacent bath with an insoluble anode. The energy consumed in one test amounted to 34 000 amp-h, the maximum output being 3.5 kg of refined beryllium, which corresponded to an average current efficiency of 80%. Recovery of beryllium attained was also 80%. The cathode deposit constituted 94% of the dissolved anode material. A homogeneous deposit, in the form of bright plate-like crystals, measuring 15 x 20 mm, was produced. For the preparation of anodes, beryllium obtained either electrolytically or by thermal reduction of fluoride, was used. In the former case, it contained 0.02-0.05% Fe, 0.1% Ni, and 0.005-0.008% Cu; in the latter case the impurity content was 0.12% Fe, approximately 0.01% Ni, and 0.01% Cu and Mn. In most cases the refined metal contained 0.005-0.006% Fe, 0.01% Ni, and 0.003% Cu; the manganese content did not exceed $n \times 10^{-4}\%$, that of zinc and silicon being less than $n \times 10^{-3}\%$; the deposit contained less than 0.3 g/t boron and less than 0.04 g/t rare earths.

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The metal in the anodic slime collector contained (after washing) 0.05-0.02% Fe, 0.05-0.03% Ni, and 0.02-0.03% Cu; no agglomeration of impurities in the electrolyte was observed. It was concluded that beryllium obtained by the process described in the present paper satisfies most stringent requirements and approaches in quality metal refined by distillation.

There are 4 figures, 6 tables and 2 Soviet references.

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SOV/136-58-12-9/22

AUTHORS: Ostroushko, Yu.I., Meyerson, G.A., Silina, G.F. and
Shtrapenina, R.B.

TITLE: Electrolytic Method of Producing Tantalum (Elektroliti-
cheskiy sposob polucheniya tantala)

PERIODICAL: Tsvetnyye Metally, 1958, Nr 12, pp 38 - 44 (USSR)

ABSTRACT: Electrolysis of melts for tantalum production was first developed in 1929 (Ref 1). The method, which was adopted outside the USSR, depended on the decomposition of Ta_2O_5 , whose presence in the K_2TaF_7 -KF(-KCl-NaF) melt eliminated the anode effect. Electrolysis becomes progressively more advantageous than the sodium-thermic method as the scale of operations is increased, a further advantage being the increasing availability of the pentoxide. The work described had as its object the study of electrolysis conditions for a type of electrolyte (based on NaCl + KCl eutectic) not used in practice. Electrolysis was effected in a nickel crucible (cathode) (Figure 1) 100 mm in diameter, the bath depth being 180 mm. The cylindrical graphite anode, with a working surface of 546 cm², was fixed centrally. The electrolyte was made by fusing the equi-molecular chlorides (calcined, chemically pure) mixture and the K_2TaF_7 (pure,

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Electrolytic Method of Producing Tantalum

dry) at 650 - 700 °C and then adding pure dry Ta_2O_5 (10-15% of the weight of the K_2TaF_7 could dissolve) after the anode had been inserted and the direct current switched on. The influence on recovery and current efficiency of the K_2TaF_7 content (10-100%) of the electrolyte (Figure 2) and of temperature (610-720 °C) (Figure 3) were studied, as was the effect on electrolysis of anodic current density (5-140 A/dm²). The influence of these factors on the size composition of the tantalum powder was studied as was the behaviour of impurities (Figure 4 shows the impurity contents of the bath as a function of time, Table 2 giving the corresponding information for the powder). It was found that a pure powder, suitable for producing malleable tantalum could be advantageously made by electrolysis (followed by the usual purification) from electrolytes containing 67-70% (NaCl + KCl), 25-30% K_2TaF_7 and 3-3.5% Ta_2O_5 which melts at 600 °C, is highly fluid and relatively non-volatile at the electrolysis temperature

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Electrolytic Method of Producing Tantalum

(about 700 °C) and has little effect on the nickel. A system for maintaining electrolyte quality over long working periods has been devised. The cell used provides for continuous operation with periodical removal of the 70 % Ta cathodic deposit. There are 5 figures, 2 tables and 12 references, 9 of which are English and 3 Soviet.

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PHASE I BOOK EXPLOITATION SOV/5022

Silina, G.F., Yu. I. Zarembo, and L.E. Bertina

Berilliy; khimicheskaya tekhnologiya i metallurgiya (Beryllium; Chemical Technology and Metallurgy) Moscow, Atomizdat, 1960. 119 p. 4,000 copies printed.

Ed. (Title page): Viktor I. Spitsyn; Ed.: A.F. Alyabyev; Tech. Ed.: N.A. Vlasova.

PURPOSE: This book is intended for metallurgists, physicists, chemists and other persons who may be interested in the production, properties, and use of beryllium and its compounds.

COVERAGE: The book gives a critical review of literature published in the last fifteen years on the physicochemical, nuclear, mechanical, corrosion, and chemical properties of beryllium. It describes the industrial processes of producing beryllium and its compounds on the basis of non-Soviet and Soviet literature published up to 1959. Chapters I and II were written by Yu.I. Zarembo; Chapter III, by Viktor I. Spitsyn (Editor), G.F. Silina, and L.E. Bertina; Chapter IV, by G.F. Silina; and Chapter V, jointly by Zarembo and Silina. No personalities are mentioned. The book is based mainly on Western sources. There are 261 references, of which 67 are Soviet.

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SILINA, G.F.; ZAREMBO, Yu.I.; BERTINA, L.E.; SPITSYN, V.I., akad., red.;
ALYAB'YEV, A.F., red.; VLASOVA, N.A., tekhn. red.

[Beryllium; chemical technology and metallurgy] Berillii; khimicheskaya tekhnologiya i metallurgiya. Pod red. V.I.Spitsyna. Moskva, Izd-vo Gos.komiteta Soveta Ministrov SSSR po ispol'zovaniyu atomnoi energii, 1960. 119 p. (MIRA 14:12)
(Beryllium)